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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/626,454	07/23/2003	Takeshi Ido	16869P-078700US	9608
20350	7590	03/16/2006		EXAMINER
				PEIKARI, BEHZAD
			ART UNIT	PAPER NUMBER
				2189

DATE MAILED: 03/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/626,454	IDO ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	B. James Peikari	2189	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 05 January 2006.
- 2a) This action is FINAL.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) 5-19 is/are allowed.
- 6) Claim(s) 1-4 and 20-27 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 23 July 2003 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 9/16/04.

- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_\_.

**DETAILED ACTION**

***Priority***

1. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Japan on November 11, 2002. It is noted, however, that applicant has not filed a certified copy of the Japanese application as required by 35 U.S.C. 119(b).

***Specification***

2. The previous objection to the title of the invention is withdrawn due to the amendment filed on January 5, 2006.

3. The requirement for a substitute specification is withdrawn due to the amendment filed on January 5, 2006. Only those errors of language pointed out in the previous Office action have been corrected. Therefore, applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-4 and 20-27 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Yanai et al., U.S. 5,544,347.

To the extent the limitations of the claims can be understood by the examiner in view of the deficient specification, these claims appear to be drawn to a fundamental data mirroring system wherein mirroring is performed by redundant data transfers and storage between a first and second control units and their respective storage units.

Yanai et al. has been cited as a good example of just such a system. Yanai et al. teach each and all of the features of the present claims including a first storage area 20, a second storage area 48, a first storage control unit 16 controlling storage area 20, a second storage control unit 44, controlling storage area 48, as well as the ability of the two controllers write redundant data to and/or read from each other's storage areas via their respective controllers. When a first request (from either Host A or Host B) is sent to the first controller 16, data is written to storage device 20 and the request can be forwarded (via communication link 40 or signal path 63) to the second controller 44, to write to storage device 48. Conversely, when a second request is sent to the second controller 44, data is written to storage device 48 and can be forwarded (via communication link 40 or signal path 63) to the first controller 16, to write to storage device 20. Note Figure 1.

***Response to Amendment***

6. The remarks filed with the amendment of January 5, 2006 have been carefully considered but are not deemed to put the application in condition for allowance. Specifically, all of applicant's remarks hinge on the assertion that in Yanai et al. write request are not transferred from one control unit to another, but rather "the identical data is merely transmitted to the other data storage system". However, this interpretation of Yanai et al. is incorrect. First, in the system of Yana et al., it is impossible for one controller to write data directly into the storage system of the other controller – note signal paths of Figure 1. Second, transmitting "the identical data" to be written is the same thing as transferring a request. A write request *is* data to be written.

In addition, with regard to claims 1-4, applicant states that "In the claimed invention, the second storage control unit, even when receiving a write request for a secondary volume, *does not write data in the secondary volume in response to the write request, but transfers the write request to the first control unit*" [emphasis added]. However, this feature is not mentioned in the claim.

With regard to claims 20-27, each of the paths noted by applicant is clearly shown in Figure 1.

***Allowable Subject Matter***

7. Claims 5-19 are allowable.

***Conclusion***

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

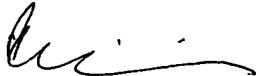
9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Peikari whose telephone number is (571) 272-4185. The examiner is generally available between 7:00 am and 7:30 pm, EST, Monday through Wednesday, and between 5:30 am and 4:00 pm on Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Kim, can be reached at (571) 272-4182. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center at 866-217-9197 (toll-free).



B. James Peikari  
Primary Examiner  
Art Unit 2189  
3/11/06